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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,185	02/15/2002	Christoph Schwald	BP-66	9510

7590 07/19/2005

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EXAMINER

CHIANG, JACK

ART UNIT	PAPER NUMBER
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2642

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,185

Applicant(s)

SCHWALD, CHRISTOPH

Examiner

Jack Chiang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/04 and 4/25/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

CLAIMS

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by De Roo et al. (US 2002/0094101).

Regarding claim 1, De Roo shows:

A microphone housing (housing 30);

A microphone capsule (enclosing/supporting 39 or 70);

Front sound entry openings (32);

Front volume (36);

Rear sound entry openings (34);

Rear volume (38);

The front and rear volumes are in communication with front and rear sound entry openings of the microphone capsule respectively;

A connecting volume (i.e. 80) connecting the front volume (36) and the rear volume (38).

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Regarding claims 2 and 5, De Roo shows:

The connecting volumes can be narrow ducts (80 or 42);

Knobs or webs (40 or 72) for supporting the microphone capsule.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toki (US 6091830) in view of De Roo et al.

Claims 3-4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Roo et al in view of Toki .

Regarding claim 1, Toki shows:

A microphone housing (9);

A microphone capsule (11);

Front sound entry openings (2);

Front volume (space for 4);

Rear sound entry openings (8);

Rear volume (space for 7);

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The front and rear volumes are in communication with front and rear sound entry openings of the microphone capsule respectively.

Toki differs from the claimed invention in that it does not have a connecting volume connecting the front volume and the rear volume.

However, De Roo teaches providing a connecting volume (i.e. 80) connecting the front volume (36) and the rear volume (38) in a microphone housing design.

Hence, it would have been obvious for one of ordinary skill in the art to modify Toki's microphone housing with a connecting volume connecting the front volume and the rear volume as taught by De Roo, this modification would improve low frequency roll-off for the microphone (see Abstract in De Roo).

Regarding claims 2 - 6, the combination of Toki and De Roo shows:

The connecting volumes can be narrow ducts, or annular gap can be considered as a design preference as long as it can achieve the same function as the ducts (80, page 3, paragraph 0043 in De Roo);

Sound permeable foam components (4, 7 in Toki);

Knobs or webs (40 or 72 in De Roo; 10 in Toki) for supporting the microphone capsule;

Further, the height of the front volume is dictated by the design criteria for the microphone frequency pattern, and is considered as a design preference and would have been obvious for one of ordinary skill in the art. In other words, the height of the front volume can be varied depending on what the microphone frequency pattern is in the design criteria.

ARGUMENT

5. In response to papers filed on 12/22/04 and 4/25/05. The PTO has received a copy of the specification and claims filed on 4/25/05 which appears to be an English translation of the priority paper.

In response to remarks filed on 12/22/04, applicant states that the present application has a priority date of **2/15/01**, and the De Roo et al. reference has a filing date of 1/9/02. That is correct. Further, the De Roo et al. reference also is a non-provisional application of a provisional application filed on **1/12/01**. In conclusion, even applicant has a certified English translation of the priority paper, De Roo et al. is still qualified as a prior art.

6. Applicant's arguments filed on 12/22/04 and 4/25/05 have been fully considered but they are not persuasive. See comments above.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

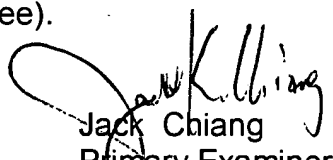
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 571-272-7483. The examiner can normally be reached on Mon.-Fri. from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jack Chiang
Primary Examiner
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